AMENDMENTS TO THE CLAIMS

1-8. (Canceled)

9. (Currently Amended) A compound sheath superconducting wire comprising[[:]] at least one ~~a plurality of~~ magnesium boride core wire member ~~members;~~ including:

a tubular-shaped metal cladding layer having a superconductor material coaxially provided within the tubular-shaped metal cladding layer, wherein the metal cladding layer has an electric resistance of 7 μΩ or less at room temperature;

a metal base member ~~having a plurality of tubular openings in a longitudinal direction, wherein the metal base member has~~ with a Vickers hardness of at least 50 at room temperature~~, and wherein the plurality of magnesium boride core wire members are inserted into the plurality of tubular openings;~~ coaxially provided outside the tubular-shaped metal cladding layer; and

an intermediate layer, wherein the intermediate layer [[is]] operates as a junction auxiliary material coaxially arranged between the metal cladding layer and the metal base member, wherein the junction auxiliary material is electrically and mechanically unified and integrated with the metal base member and the tubular-shaped metal cladding layer in a unitary block, the junction auxiliary material at least containing a metal selected from a group including copper, silver, gold, palladium, aluminum, silicon, indium, tin, zinc, iron, lead, nickel, manganese and boron.

10. (Currently Amended) A compound sheath superconducting wire comprising[[:]] at least one ~~a plurality of~~ magnesium boride core wire ~~members;~~ member including:

a tubular-shaped metal cladding layer having a superconductor material coaxially provided within the tubular-shaped metal cladding layer, wherein the metal cladding layer has a Vickers hardness of at least 50 at room temperature;

a metal base member ~~having a plurality of tubular openings in a longitudinal direction, wherein the metal base member has~~ with an electric resistance of 7 μΩ or less at room temperature ~~and the plurality of magnesium boride core wire members are inserted into the plurality of tubular openings;~~ coaxially provided outside the tubular-shaped metal cladding layer; and

an intermediate layer, wherein the intermediate layer operates as [[is]] a junction auxiliary material coaxially arranged between the metal cladding layer and the metal base member, wherein the junction auxiliary material is electrically and mechanically unified and integrated with the metal base member and the tubular-shaped metal cladding layer in a unitary block, the junction auxiliary material at least containing a metal selected from a group including copper, silver, gold, palladium, aluminum, silicon, indium, tin, zinc, iron, lead, nickel, manganese and boron.

11. (Currently Amended) The compound sheath superconducting wire of claim [[9]] 21, wherein the plurality of magnesium boride core wire members are twisted.

12. (Currently Amended) The compound sheath superconducting wire of claim [[9]] 21, wherein the plurality of magnesium boride core wire members have a density of at least 90% with respect to a theoretical density.

13. (Canceled)

14. (Previously Presented) The compound sheath superconducting wire of claim 9, wherein the metal cladding layer comprises at least one material selected from the group comprising copper, aluminum, gold, silver, nickel, molybdenum, brass and niobium.

15. (Previously Presented) The compound sheath superconducting wire of claim 9, wherein the metal base layer comprises at least one material selected from the group comprising SUS304, SUS316, SUS310, SUS430, carbon steel, cobalt, tungsten, nickel, molybdenum, titanium, aluminum-based alloy, titanium-based alloy, nickel-based alloy, copper-based alloy, niobium-based alloy and magnesium based alloy.

16. (Currently Amended) The compound sheath superconducting wire of claim [[10]] 22, wherein the plurality of magnesium boride core wire members are twisted.

17. (Currently Amended) The compound sheath superconducting wire of claim [[10]] 22, wherein the plurality of magnesium boride core wire members have a density of at least 90% with respect to a theoretical density.

18. (Canceled)

19. (Previously Presented) The compound sheath superconducting wire of claim 10, wherein the metal cladding layer comprises at least one material selected from the group comprising copper, aluminum, gold, silver, nickel, molybdenum, brass and niobium.

20. (Previously Presented) The compound sheath superconducting wire of claim 10, wherein the metal base layer comprises at least one material selected from the group comprising SUS304, SUS316, SUS310, SUS430, carbon steel, cobalt, tungsten, nickel, molybdenum, titanium, aluminum-based alloy, titanium-based alloy, nickel-based alloy, copper-based alloy, niobium-based alloy and magnesium based alloy.

21. (New) A compound sheath superconducting wire comprising:

a metal base wire member with a Vickers hardness of at least 50 at room temperature,

a plurality of tubular-shaped metal cladding layers having a superconductor material coaxially provided within the tubular-shaped metal cladding layers, wherein each of the metal cladding layers has an electric residence of 7 $\mu\Omega$ or less at room temperature, each of the tubular shaped metal cladding layers being arranged to be provided within the metal base wire member in parallel with each other along a longitudinal direction of the metal base wire member, and

an intermediate layer coaxially provided outside the tubular-shaped metal cladding layers, wherein the intermediate layer is electrically and mechanically unified and integrated with the metal base member and the tubular-shaped metal cladding layers in a unitary block, the junction auxiliary material at least containing a metal selected from a group including

copper, silver, gold, palladium, aluminum, silicon, indium, tin, zinc, iron, lead, nickel, manganese and boron.

22. (New) A compound sheath superconducting wire comprising:

a metal base wire member with an electric resistance of 7 μ Ω or less at room temperature,

a plurality of tubular-shaped metal cladding layers having a superconductor material coaxially provided within the tubular-shaped metal cladding layers, wherein each of the metal cladding layers has a Vickers hardness of at least 50 at room temperature, each of the tubular-shaped metal cladding layers being arranged to be provided within the metal base wire member in parallel with each other along the longitudinal direction of the metal base wire member, and

an intermediate layer coaxially provided outside the tubular-shaped metal cladding layers, wherein the intermediate layer is electrically and mechanically unified and integrated with the metal base member and the tubular-shaped metal cladding layers in a unitary block, the junction auxiliary material at least containing a metal selected from a group including copper, silver, gold, palladium, aluminum, silicon, indium, tin, zinc, iron, lead, nickel, manganese and boron to be added such as shown in the added claim 21 with limitations of the present claim 10.

23. (New) The compound sheath superconducting wire of claim 21, wherein the intermediate layer is a tin alloy.

24. (New) The compound sheath superconducting wire of claim 22, wherein the intermediate layer is a tin alloy.

25. (New) A superconducting wire comprising:

at least one magnesium boride wire member;

a tubular shaped iron alloy surrounding said at least one magnesium boride wire member;

a copper portion surrounding said at least one magnesium boride wire member and said tubular shaped iron alloy; and

an intermediate layer between said tubular shaped iron alloy and said copper portion, wherein said intermediate layer is as a junction auxiliary material that is electrically and mechanically unified and integrated with said tubular shaped iron alloy and copper portion in a unitary structure, and wherein said intermediate layer is constructed from a tin alloy.

26. (New) The superconducting wire of claim 25, wherein said tubular shaped iron alloy directly contacts said at least one magnesium boride wire member.